

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

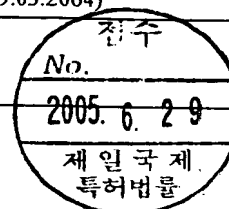
To:  
JANG, Seongku  
  
19th Fl., KEC Building, #275-7, Yangjae-dong, Seocho-ku  
Seoul 137-130 Republic of Korea

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

|  |   |   |  |
|--|---|---|--|
| Applicant's or agent's file reference<br>PCA50313-PSC  |   | Date of mailing<br>(day/month/year) 28 JUNE 2005 (28.06.2005) |  |
| FOR FURTHER ACTION<br>See paragraph 2 below  |   |   |  |
| International application No.<br><b>PCT/KR2005/000910</b>  | International filing date (day/month/year)<br><b>29 MARCH 2005 (29.03.2005)</b> | Priority date(day/month/year)<br>29 MARCH 2004 (29.03.2004)   |  |
| International Patent Classification (IPC) or both national classification and IPC<br><b>IPC7 C07K 14/415</b> |   |   |  |
| Applicant<br><b>POSTECH FOUNDATION et al</b>   |   |   |  |



1. This opinion contains indications relating to the following items:


- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.  
For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

|   |   |
|---|---|
| Name and mailing address of the ISA/KR<br> Korean Intellectual Property Office<br>920 Dunsan-dong, Seo-gu, Daejeon 302-701,<br>Republic of Korea<br>Facsimile No. 82-42-472-7140 | Authorized officer<br>PARK, JEONG UNG<br>Telephone No. 82-42-481-8159 |
|---|---|



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2005/000910

**Box No. 1 Basis of this opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☒ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☒ in written format  
☒ in computer readable form

c. time of filing/furnishing

- ☒ contained in the international application as filed.  
☒ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2005/000910

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

|                               |        |     |     |
|-------------------------------|--------|-----|-----|
| Novelty (N)                   | Claims | 4-9 | YES |
|                               | Claims | 1-3 | NO  |
| Inventive step (IS)           | Claims | 4-9 | YES |
|                               | Claims |     | NO  |
| Industrial applicability (IA) | Claims | 1-9 | YES |
|                               | Claims |     | NO  |

**2. Citations and explanations :**

The present invention relates to a gene controlling the flowering time, a protein encoded therein, and a method for controlling the flowering time of a plant using the gene.

The following document have been considered for the purpose of this report:

D1: NCBI Accession No. AAB67632, Mar. 11, 2002

**1. Novelty**

Claims 1-3 describes a gene controlling the flowering time and a protein encoded therein. The gene and protein of the present invention are useful in improving flowering-associated characters of plants and for identifying flowering-associated genes and proteins in other plants. However, document D1 discloses a DOF zinc-finger protein which has the same sequence with the present invention. Therefore, the subject-matter of claims 1-3 is not considered to be novel under PCT Article 33(2).

**2. Inventive Step**

The prior art document does not teach or suggest the use of the sequence of SEQ ID No: 2 to control the flowering time of a plant. Therefore, the subject matter of claims 4-9 is considered to involve an inventive step under PCT Article 33(3).

**3. Industrial Applicability**

The subject matter of claims 1-9 is considered to be industrially applicable under PCT Article 33(4).